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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,912	06/26/2003	Hanns-Erik Endres	3761	5743

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EXAMINER	
LE, JOHN H	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,912	ENDRES, HANNS-ERIK	
	Examiner	Art Unit	
	John H. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/03/05, 04/18/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This office action is in response to applicant's amendment received on 04/18/2005.

Claims 7-8 have been amended.

The specification has been amended.

The abstract has been amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Stark et al. (USP 5,568,400).

Regarding claims 1 and 9, Stark et al. disclose an apparatus for monitoring a running process, comprising: acquisition means (200) for repeatedly acquiring at least two different pieces of information of the process (Fig.2, Col.12, lines 14-25); means (300) for performing a main component transformation due to the acquired information (Col.12, lines 28-41), whereby a main component measurement vector (linear) is calculated in a main component space (calculator 330, Fig.3, Col.12, lines 42-67); and evaluation means (estimator 320, Col.6, lines 8-16) for calculating a process indicator quantity by using a calculated main component measurement vector (linear) and one or several previously calculated main component measurement vectors (Col.9, lines 25-

35, Col.16, lines 48-64), wherein the evaluation means (estimator 320) is further formed to detect an end of the process (else end) by using the process indicator quantity (Col.13, lines 51-65, Col.16, line 48-Col.17, line 16) .

Regarding claim 2, Stark et al. disclose the process is a discontinually running process (e.g. some of the operations may be performed in different order without significantly affecting the results obtained, Col.17, lines 18-21).

Regarding claim 3, Stark et al. disclose the step of repeatedly acquiring comprises acquiring of at least two different measurement data of the process (e.g. Col.8, lines 62-65).

Regarding claim 4, Stark et al. disclose the step of performing a main component transformation further comprises the step of selecting the acquired information to perform a main component transformation merely for the selected information (e.g. Col.12, lines 51-54).

Regarding claim 5, Stark et al. disclose performing a main component transformation further comprises averaging the acquired information for generating average value information, which is used in the main component transformation (e.g. Col.4, lines 1-13, Col.9, lines 57-60).

Regarding claim 6, Stark et al. disclose calculating a process indicator quantity comprises calculating the quantity and/or direction of a difference vector, which is formed from the calculated main component measurement vector and a previous main component measurement vector (e.g. Col.8, line 66-Col.9, line 44).

Regarding claim 7, Stark et al. disclose detecting an end of the process, the end of the process is indicated when a predetermined number of process indicator quantities are in a predetermined indicator area (e.g. Col.9, lines 25-35).

Regarding claim 8, Stark et al. disclose intervening into a running process when an end of the running process is detected in the step of detecting an end of the process (e.g. Fig.3, Col.17, line 17).

Regarding claim 10, Stark et al. disclose the acquisition means comprises one or several sensors, which are selected from the group comprising an optical sensor (Col.11, lines 57-62).

Regarding claim 11, Stark et al. disclose the means (370) for performing a main component transformation is further formed to make a selection from the acquired information of the process, so that a main component transformation is performed merely for the selected information of the process (e.g. Col.12, lines 51-54).

Regarding claim 12, Stark et al. disclose the means for performing a main component transformation is further formed to perform a main component transformation by using average value information, which is formed by averaging the acquired information of the process (e.g. Col.4, lines 1-13).

Regarding claim 13, Stark et al. disclose the evaluation means (320) is formed to calculate the process indicator quantity by using a spacing of the calculated main component measurement vector from a previous main component measurement vector and/or a direction of the difference vector from the calculated vector and a previous vector (e.g. Col.8, line 66-Col.9, line 44).

Regarding claim 14, Stark et al. disclose the process indicator quantity is calculated from the absolute values of the spacing and the direction of the difference vector (e.g. Col.9, lines 25-44).

Regarding claim 15, Stark et al. disclose the acquisition means is formed to acquire transient measurement signals (e.g. Col.21, lines 10-112).

Regarding claim 16, Stark et al. disclose the transient measurement signals comprise a spectrum or a temperature signal (e.g. Col.6, lines 38-56).

Regarding claim 17, Stark et al. disclose the acquisition means is formed to acquire time series information (k series, wherein k may be representative of time, Col.8, lines 33-38, Col.11, lines 18-21).

Regarding claim 18, Stark et al. disclose the acquisition means is formed to acquire at least two different parameters of different dimensional characteristics, and wherein the means for performing a main component transformation is performed to perform a multi-stage main component transformation due to the at least two different parameters of different dimensional characteristics (Col.1, lines 47-55, Col.8, lines 33-38).

Regarding claim 19, Stark et al. disclose a control means (control & logic sequencer 370) to intervene in the running process when an end of the process is detected by the evaluation means (320) (e.g. Fig.3, Col.17, line 17).

Response to Arguments

4. Applicant's arguments filed 04/18/2005 have been fully considered but they are not persuasive.

-Applicant argues that the prior did not teach, "detecting an end of a process by acquiring information of this process and performing a main component transformation of acquired information in order to obtain an indicator for deciding whether the process has ended or not".

Examiner position is that Applicant's invention does not described "detecting an end of a process by acquiring information of this process and performing a main component transformation of acquired information in order to obtain an indicator for deciding whether the process has ended or not" in claims 1 or 9.

Examiner position is that Stark et al. disclose an apparatus for monitoring a running process, comprising: acquisition means (200) for repeatedly acquiring at least two different pieces of information of the process (Fig.2, Col.12, lines 14-25); means (300) for performing a main component transformation due to the acquired information (Col.12, lines 28-41), whereby a main component measurement vector (linear) is calculated in a main component space (calculator 330, Fig.3, Col.12, lines 42-67); and evaluation means (estimator 320, Col.6, lines 8-16) for calculating a process indicator quantity by using a calculated main component measurement vector (linear) and one or several previously calculated main component measurement vectors (Col.9, lines 25-35, Col.16, lines 48-64), wherein the evaluation means (estimator 320) is further formed to detect an end of the process (else end) by using the process indicator quantity (Col.13, lines 51-65, Col.16, line 48-Col.17, line 16) as cited in claims 1 and 9.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

June 14, 2005

MICHAEL NGHIEM
PRIMARY EXAMINE